# DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

G07CE Revision 4

Diamond Aircraft Industries GmbH

HK 36 TS HK 36 TC

HK 36 TC with Rotax S3 (HK 36

TC-100) HK 36 TTS HK 36 TTC HK 36 TTC-ECO

HK 36 TTC-ECO (Restricted

Category)

January 12, 2004

Type Certificate Holder. DIAMOND AIRCRAFT INDUSTRIES GmbH

N.A. Otto-Strasse 5 A-2700 Wiener Neustadt

Austria

# I. Model HK 36 TS Self Launching Powered Glider, Utility Category, approved September 25, 1997.

Engine. Rotax 912 A3

<u>Fuel.</u> AVGAS 100 LL or Super min ROZ 95 octane, unleaded

Engine Limits. Take off power

59.6 kW (79.9 BHP) at 5800 rpm

Max. Continuous Power

58.0 kW (77.8 BHP) at 5500 rpm

Propeller and Propeller Limits. Muhlbauer MTV-21-A-C-F/CF 175-05

Diameter range 1750 mm (68.90 in.) maximum Diameter range 1750 mm (68.90 in.) minimum

Low Pitch $12^{\circ} \pm 0.2^{\circ}$ Starting Pitch $14^{\circ} \pm 1^{\circ}$ High Pitch $23^{\circ} \pm 1^{\circ}$ Feathered Pitch $83^{\circ} \pm 1^{\circ}$ Ctrwts. At Low Pitch $28^{\circ} \pm 1^{\circ}$ 

Reduced propeller speed, step-down ration 1-2.2727 (compared to

engine speed)

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Airspeed Limits (I.A.S.).	V NE (never exceed) V RA (in rough air) V A (maneuvering) V ABF (A/B in fixed position) V NE Speed Limit Altitude: Altitude MSL [m] [ft] 2000 6500 3000 9800 4000 13100 5000 16400 6000 19600	[km/h] 261 210 176 150  VNE [km/h] 261 246 233 221 210	[kts] 141 113 95 81 [kts] 141 133 126 119 113	[mph] 162 130 109 93  [mph] 162 153 145 137 130
C.G. Range.	Forward Limit: 318 mm (12.52 in.) aft of datum Aft Limit: 430 mm (16.93 in.) aft of datum Reference HK 36 TS Flight Manual Doc. No. 3.01.06, Section 2.			
Empty Mass Weight C.G.	Reference Maintenance M Section 4.	Manual, T	able of E	Empty Mass C.G. Position
Reference Datum.	Wing leading edge at wing root.			
Leveling Means.	Top surface of 1000:52 wedge horizontal on fuselage tube.			
Maximum Mass Weight.	770 kg (1698 lbs.).			
Minimum Crew.	One pilot, solo operation may be conducted from the left seat only.			
No. of Seats.	Two, 143 mm (5.63 in.) a	aft of refe	rence dat	tum.
Maximum Baggage.	12 kg (26.4 lbs.), 824 mm (32.44 in) aft of reference datum.			
Fuel Capacity.	One fuselage tank 79 liters (20.8 U.S. gal), 824 mm (32.44 in) aft of reference datum.			
Control Surface Movements.	Down 42 mm Measurement radius 19 Elevator:	± 6mm 95mm (7.6	(1.65 ir 68 in.) fro	$n \pm 0.31$ in) $n \pm 0.24$ in) om hinge line.
	For Serial Numbers up th	rough 36	.516:	. 0.1.1

Up -60 mm +5 mm  $(-2.46 \text{ in} \pm 0.1 \text{ in})$  $50 \text{ mm} \pm 5 \text{ mm}$  (2.07 in  $\pm 0.1$  in)

For Serial Numbers 36.517 and subsequent:

-60 mm +5 mm/ -0 mm (-2.46 in  $\pm$  0.1/-0 in) Up Down 50 mm +5 mm/ -0 mm (2.07 in + 0.1/-0 in)Measurement radius 200 mm (7.87 in.) from hinge line .

# Rudder:

 $\pm$  265 mm  $\pm$  15 mm ( $\pm$  10.43 in  $\pm$  0.59 in) to the right and left. Measurement radius 530 mm (20.87 in) from hinge line.

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Serial Nos. Eligible.

Serial Number 36.415, 36.416, 36.501 and subsequent.

Certification Basis.

- 1) Code of Federal Regulations (CFR), 14 CFR 21 effective February 1, 1965, Amendments 21-1 through 21-71.
- 2) Joint Aviation Requirements for Sailplanes and Powered Sairplanes (JAR 22), Change 4, issued January 29, 1988 and Orange Papers 22/90/1 and 22/91/1.
- 3) Exemption pursuant to 14 CFR 11, effective November 10, 1962. Amendments 11-1 through 11-36, Section 11.25 and 11.27.
- 4) Special Conditions issued pursuant to Section 21.16 Propeller Feathering Control, as specified in CRI A-1, dated March 5, 1995.
- 5) Equivalent level of safety finding pursuant to Section 21.21(b)(1) Middle Air Brake Stop/inadvertent movement, as specified in CRI D-1, dated March 5, 1996.
- 6) FAA Act of 1958 Section 611 (b).
- 7) 14 CFR 91, effective September 30, 1963, Amendments 91-1 through 91-229, Section 91.205 (VFR equipment requirements).
- 8) Date of Application for: HK 36 TS Type certificate December 20, 1996. Austrian Type Certificate Number SF 3/82 for HK 36 TS, issued March 8, 1996.
- 9) Type Certificate Number G07CE was issued September 25, 1997, for the HK 36 TS.
- (10) The applicable airworthiness requirements for U.S. certification under FAR 21.29 identified above were established considering the airworthiness requirements applied by the exporting country under the provisions of paragraphs 2 and 6 of the agreement between the United States of America and the Republic of Austria, dated April 30, 1959, titled Certificates of Airworthiness for Imported Aeronautical Products and Components.

Import Requirements.

A U.S. Standard Airworthiness Certificate may be issued on the basis of a Certificate of Airworthiness for Export signed by a representative of the Austro Control GmbH (ACG) containing the following statement: "The aircraft covered by this certificate has been examined, tested and found to conform to the type design approval under FAA Type Certificate G07CE and is in condition for safe operation."

The U.S. airworthiness certification basis for aircraft type certificate under FAR Section 21.29 and exported from countries other than the country of manufacture (e.g. third party country) is FAR Sections 21.183(d) or 21.183(b).

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## Minimum Equipment

1 Airspeed Indicator (range up to 300 km/h)

1 Altimeter

1 Magnetic direction indicator (Compass) with deviation table

1 RPM indicator

1 Running time meter

1 Manifold pressure gauge

1 Oil pressure gauge

1 Oil temperature gauge

1 Cylinder head temperature gauge

1 Fuel quantity gauge

1 Fuel pressure warning light

1 Ammeter

1 4-point harness for each seat

1 Generator warning light

1 Flight Manual, Doc. No. 3.01.06

## Service Information.

"Service bulletins, structural repair manuals, vendor manuals, aircraft flight manuals, and overhaul and maintenance manuals, which contain a statement that the document is ACG approved, are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only."

#### NOTES.

NOTE 1.

A current weighing report and the corresponding equipment must be provided and the Mass and Balance Diagram in Section 6 of the HK 36 TS Flight Manual must be filled out for each powered sailplane at the time of original certification. The weighing procedure given in Section 4 of the Maintenance Manual is mandatory.

NOTE 2.

The placards listed in Section 4 of the AMM or in the Supplements to the AFM must be displayed.

NOTE 3.

An Identification Plate in accordance with DAI DWG No. 820-1100-00-04 must be attached to the fuselages left side on the lower side of the vertical stabilizer.

NOTE 4.

All external portions of the glider exposed to sunlight must be painted white except the surfaces as specified by the manufacturer in the AMM.

NOTE 5.

Major structural repairs must be accomplished at FAA-certificated repair stations rated for composite aircraft structure work, in accordance with Diamond Aircraft Instructions for Continued Airworthiness.

NOTE 6.

Prior to registration in the U.S.A. all applicable Mandatory Service Bulletins must be carried out.

NOTE 7.

Section 6 of the Diamond HK 36 TS Maintenance Manual specifies mandatory replacement times. These airworthiness limitations may not be changed without FAA approval.

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NOTE 8. The Rotax 912 A3 Engine has to be modified in accordance with Rotax Service

Bulletin 912-11, with Propeller Governor WOODWARD A210790 or Rotax

Service Bulletin 912-24, with Propeller Governor McCAULEY

DCFU290D17B/T1.

NOTE 9. The installation and use of a differential braking system in accordance with

Diamond SB No. 40, latest effective issue, is permitted.

II. Model HK 36 TC Self Launching Powered Glider, Utility Category, approved September 25, 1997.
Model HK 36 TC with Rotax 912 S3 (HK 36 TC-100) Self Launching Powered Glider, Utility Category, approved January 12, 2004.

Engine (1) Bombardier Rotax 912 A3 or 912 S3

Fuel AVGAS 100LL or

Super Min ROZ 95 Octane, unleaded or

Automotive gasoline, unleaded, minimum RON 95

<u>Engine Limits</u> <u>912 A3:</u> <u>912 S3:</u>

Take-off power: Take-off power:

59.6 kW (79.9 BHP) at 5800 rpm
Maximum continuous power
58.0 kW (77.8 BHP) at 5500 rpm

73.5 kW (99 BHP) at 5800 rpm

Maximum continuous power
69.0 kW (93 BHP) at 5500 rpm

Propeller and Propeller Limits

For 912 A3:

Muhlbauer, MTV-21-A-C-F/CF 175-05

Diameter range 1750 mm (68.90 in.) maximum Diameter range 1750 mm (68.90 in.) minimum

Low Pitch $12^{\circ} \pm 0.2^{\circ}$ Starting Pitch $14^{\circ} \pm 1^{\circ}$ High Pitch $23^{\circ} \pm 1^{\circ}$ Feathered Pitch $83^{\circ} \pm 1^{\circ}$ Ctrwts. At Low Pitch $28^{\circ} \pm 1^{\circ}$ 

Reduced propeller speed, step-down ration 1-2.2727 (compared to engine speed)

For 912 S3:

Muhlbauer, MTV-21-A-C-F/CF 175-05

Diameter range 1750 mm  $\pm$  0 mm (68.90 in.  $\pm$  0 in) maximum Diameter range 1750 mm  $\pm$  0 mm (68.90 in.  $\pm$  0 in) minimum

Low Pitch $14^{\circ} \pm 0.2^{\circ}$ Starting Pitch $14^{\circ} \pm 1^{\circ}$ High Pitch $20^{\circ} \pm 1^{\circ}$ Feathered Pitch $83^{\circ} \pm 1^{\circ}$ Ctrwts. At Low Pitch $28^{\circ} \pm 1^{\circ}$ 

Reduced propeller speed, step-down ration 1-2.4286 (compared to engine speed)

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	Airspe	ed Limits	(I.A.S.)
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	[km/n]	[Kts]	[mpn]
V <sub>NE</sub> (never exceed)	261	141	162
V <sub>RA</sub> (in rough air)	210	113	130
V <sub>A</sub> (maneuvering)	176	95	109
V <sub>ABF</sub> (A/B in fixed position)	150	81	93

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$V_{\mathrm{NE}}$ Speed Limit versus Altitude	[km/h]	[kts]	[mph]
0 – 2000 m (6500 ft)	261	141	162
3000 m (9800 ft)	246	133	153
4000 m (13,100 ft)	233	126	145
5000 m (16,400 ft)	221	119	137
6000 m (19,600 ft)	210	113	130

Take-off Weight to V <sub>A</sub>	[km/h]	[kts]	[mph]
770 kg (1698 lbs)	176	95	109
700 kg (1543 ft)	168	91	104
650 kg (1433 ft)	162	87	101
600 kg (1323 ft)	155	84	96

C.G. Range

Forward Limit: 318 mm (12.52 in.) aft of datum Aft Limit: 430 mm (16.93 in.) aft of datum

For 912 A3: Reference HK 36 TC Flight Manual Doc. No. 3.01.10-E, Section 2 For 912 S3: Reference HK 36 TC Flight Manual Doc. No. 3.01.12-E, Section 2

Empty Mass Weight C.G.

Reference Maintenance Manual, Doc. No. 3.02.21, Section 4, latest revision

Reference Datum

Wing leading edge at wing root rib (y = 0.6m (23.62 in))

Leveling Means

Top surface of 1000:52 wedge horizontal on fuselage tube.

Maximum Weights

Maximum Take-off Weight: 770 kg (1698 lbs) Maximum Landing Weight: 770 kg (1698 lbs)

Minimum Crew

One pilot, solo operation may be conducted from the left seat only.

No. of Seats

Two, 143 mm (5.63 in.) aft of reference datum.

Maximum Baggage

12 kg (26.4 lbs)

Moment Arm on baggage compartment:

727 mm (28.62 in) aft of datum for standard fuel tank installation 824 mm (32.44 in) aft of datum for the long range fuel tank installation

See Airplane Flight Manual, latest revision

Fuel Capacity

Standard tank: 55 liters (14.53 U.S. gal)

Useable Fuel Amount: 54 liters (14.27 U.S. gal) Moment Arm: 824 mm (32.44 in) aft of reference datum

Long range tank: 79 liters (20.8 U.S. gal)

Useable Fuel Amount: 77 liters (20.34 U.S. gal)

Moment Arm: 824 mm (32.44 in) aft of reference datum

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Oil Capacity

3.4 liters (3.60 U.S. quarts)

Useable Oil Amount: 0.4 liters (0.42 U.S. quarts)

Moment Arm: -1050 mm (-41.34 in) forward of reference datum

Coolant

Antifreeze concentrate. See Airplane Maintenance Manual Quantity: 2.8 liters (0.74 U.S. gal or 2.96 U.S. quarts)

Moment Arm: -1100 mm (-43.31 in) forward of reference datum

# **Control Surface Movements**

#### Aileron:

All Serial Numbers:

Up:  $85 \text{ mm} \pm 8 \text{ mm}$  (3.35 in  $\pm$  0.31 in) Down:  $42 \text{ mm} \pm 6 \text{mm}$  (1.65 in.  $\pm$  0.24 in) Measurement radius: 195 mm (7.68 in.) from hinge line.

#### Elevator:

For Serial Numbers up through 36.516:

Up:  $60 \text{ mm} \pm 5 \text{ mm}$  (2.36 in  $\pm 0.20 \text{ in}$ ) Down:  $50 \text{ mm} \pm 5 \text{ mm}$  (1.97 in  $\pm 0.20 \text{ in}$ )

Measurement radius: 200 mm (7.87 in) from hinge line

For Serial Numbers 36.517 and subsequent:

Up: 60 mm + 5 mm / -0 mm (2.36 in + 0.20 / -0.0 in) Down: 50 mm + 5 mm / -0 mm (1.97 in + 0.20 / -0.0 in) Measurement radius 200 mm (7.87 in.) from hinge line.

# Rudder:

All Serial Numbers:

Right:  $265 \text{ mm} \pm 15 \text{ mm} (10.43 \text{ in} \pm 0.59 \text{ in})$ Left:  $265 \text{ mm} \pm 15 \text{ mm} (10.43 \text{ in} \pm 0.59 \text{ in})$ 

Measurement radius 530 mm (20.87 in) from hinge line.

## Serial Nos. Eligible

## Certification is valid for:

Serial No. 36.505. See Note 7.

Serial Nos. 36.517 and subsequent with the exceptions of Serial Nos. 36.713, 36.717, 36.719, 36.725, 36.729, and 36.735. See Note 8.

#### Certification Basis

For the original Rotax 912 A3 installation:

- 1) Code of Federal Regulations (CFR), 14 CFR 21 effective February 1, 1965, Amendments 21-1 through 21-71.
- 2) Joint Aviation Requirements for Sailplanes and Powered sailplanes (JAR 22), Change 5, issued October 28, 1995.
- 3) Exemption pursuant to 14 CFR 11, effective November 10, 1962. Amendments 11-1 through 11-36, Section 11.25 and 11.27.
- 4) FAA Act of 1958, Section 611 (b).
- 5) 14 CFR 91, effective September 30, 1963, Amendments 91-1 through 91-229, Section 91.205 (VFR equipment requirements).
- 6) Date of Application for: HK 36 TC Type certificate December 20, 1996. Austrian Type Certificate Number SF 3/82 for HK 36 TC, issued July 12, 1996.

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## Certification Basis, cont'd

7) Type Certificate Number G07CE was issued September 25, 1997, for the HK 36 TC.

8) The applicable airworthiness requirements for U.S. certification under FAR 21.29 identified above were established considering the airworthiness requirements applied by the exporting country under the provisions of paragraphs 2 and 6 of the agreement between the United States of America and the Republic of Austria, dated April 30, 1959, titled Certificates of Airworthiness for Imported Aeronautical Products and Components.

## For the Rotax 912 S3 installation:

The HK 36 TC with Rotax 912 S3 installed includes the following requirements in addition to the original certification basis of the HK 36 TC (configured with Rotax 912 A3 installed):

- 9) Date of Application for FAA Amended Type Certificate: January 16, 2003.
- 10) Amended Austrian Type Certificate Number SF 3/82, Issue No. 9, for model HK 36 TC and version HK 36 TC-100 issued June 10, 2003. The Austrian TC includes provisions for the optional installation of a Rotax 912 S3 engine (version HK 36 TC-100), issued October 08, 1996.
- 11) 14 CFR 21 including Amendment 21-1 through 21-84.
- 12) 14 CFR 23.785(g), Amendment 23-49, effective March 11, 1996
- 13) 14 CFR 91.205 (VFR equipment requirements), Amendments 91-1 through 91-251.
- 14) 14 CFR 45.11, Amendment 45-17, effective December 08, 1987.
- 15) JAR 22.785(e)(f), Seat and Restraint System, Change 6, dated September 26, 2000.
- 16) FAA Amended Type Certificate Number G07CE issued January 12, 2004.

A U.S. Standard Airworthiness Certificate may be issued on the basis of a Certificate of Airworthiness for Export signed by a representative of the original manufacturer's airworthiness authority, Austro Control GmbH (ACG), containing the following statement: "The aircraft covered by this certificate has been examined, tested and found to conform to the type design approved under FAA Type Certificate G07CE and is in condition for safe operation."

The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 and exported by the country of manufacture is FAR 21.183(c).

The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 and exported from countries other than the country of manufacture (e.g. third party country) is FAR 21.183(b) or 21.183(d).

Import Requirements

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## Minimum Equipment

1 Airspeed Indicator (range up to 300 km/h)

1 Altimeter

1 Magnetic direction indicator (Compass) with deviation table

1 RPM indicator

1 Running time meter

1 Manifold pressure gauge

1 Oil pressure gauge

1 Oil temperature gauge

1 Cylinder head temperature gauge

1 Fuel quantity gauge

1 Fuel pressure warning light

1 Ammeter

1 4-point harness for each seat1 Generator warning light

1 Flight Manual, Doc. No. 3.01.10-E (HK 36 TC with Rotax 912 A3) 1 Flight Manual, Doc. No. 3.01.12-E (HK 36 TC with Rotax 912 S3), latest

issue.

#### Service Information

"Service bulletins, structural repair manuals, vendor manuals, aircraft flight manuals, and overhaul and maintenance manuals which contain a statement that the document is ACG approved is accepted and considered approved by the FAA. This approval pertains to the type design only."

Available Documents for the Diamond Aircraft Industries model HK 36 TC with the Rotax 912 S3:

- 1. HK 36 TC-100 Flight Manual approved April 26, 2002, or later approved revision.
- 2. Instructions for Continued Airworthiness (Maintenance Manual), Document No. 3.02.21, Rev. No. 11 or later approved revision along with the following additions:
  - Supplement to the Maintenance Manual, Temporary Revision Document No. AMM-TR-OÄM-36-200, dated February 19, 2002 or later approved revision.
  - b) Supplement to the Maintenance Manual, Temporary Revision Document No. AMM-TR-OÄM-36-206, dated March 19, 2002 or later approved revision.
- 3. Operator's Manual for Rotax Engine 912 S3, latest effective issue.
- 4. Operation and Installation Manual, Hydraulically Variable Pitch Propeller No. E124 of MT-Propeller, latest effective issue.
- 5. Line Maintenance Manual for the Rotax 912 S, P/N 899372, Issue 0, Rev. 2, dated September 1, 1998 or latest approved version.

## **NOTES**

NOTE 1:

A current weight and balance report including a list of equipment identified with the certificated empty weight, along with loading instructions when necessary must be provided for each sailplane at the time of original certification. The weighing procedure given in Section 4 of the Maintenance Manual is mandatory.

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NOTE 2: The placards listed in Section 4 of the AMM or in the Supplements to the AFM must be displayed.

For the Rotax 912 S3 installation, the following placards must be displayed in clear view of the pilot:

- A placard which states the required compliance with the operating limitations as described by other placards, markings, and the manufacturer's documentation.
- II. "Vne vs Altitude" placard must be located near the airspeed indicator, in full view of the pilot.
- III. "Aerobatics, Spins, and Cloud Flying are not permitted"
- NOTE 3: Instructions for Continued Airworthiness (Maintenance and Inspections) are specified in the Airplane Maintenance Manual for the Powered Sailplane Models, Document No. 3.02.21, Rev. 10 or later revision. Airworthiness Limitations, Rigging and De-Rigging Instructions as well as System Descriptions are specified in the latest revision of the Flight Manual. These manuals specify operating limitations and mandatory replacement times and may not be changed without FAA approval.
- NOTE 4: Major structural repairs must be accomplished at FAA-certificated repair stations rated for composite aircraft structure work, in accordance with Diamond Aircraft Instructions for Continued Airworthiness.
- NOTE 5: All external portions of the glider exposed to sunlight must be painted white except the surfaces as specified by the manufacturer in the AMM.
- NOTE 6: The Rotax 912 A3 Engine has to be modified in accordance with Rotax Service Bulletin 912-11, with Propeller Governor WOODWARD A210790 or Rotax Service Bulletin 912-24, with Propeller Governor McCAULEY DCFU290D17B/T1.
- NOTE 7: Serial No. 36.505 has the following approved modifications according to Diamond Doc. No. 3.07.151, Chapter 2:
  - Wing Structure
  - Main Bulkhead Structure
  - Air brake system.

Airplane Flight Manual Suppliment 4 is valid for Serial No. 36.505, ACG approved on October 7, 1996.

- NOTE 8: For the HK 36 TC version (80 hp), the optional installation of the Rotax 912 S3 engine by the manufacturer in accordance with Design Change Advisory No. OÄM 36-200 is permitted for serial numbers 36.505. 36.565, and 36.648 as listed in Service Bulletin No. OSB36-078/3, dated February 1, 2003. In addition, Service Bulletin OSB36-079, latest effective revision along with Diamond Work Instruction No. WI-OSB36-078, latest issue, must be complied with. Contact the manufacturer prior to initiating this change.
- NOTE 9: The change of the propeller designation from MTV-21-A-C-F/C175-05 to MTV-21-A-C-F/CF175-05 in accordance with SB No. 52, which is ACG approved, is permitted.
- NOTE 10: Use of the HK 36 TC as a towing motor glider in accordance with manufacturer's SB No. 40, latest effective issue is permitted.

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Engine. Rotax 914 F3 or F4

Fuel. AVGAS 100 LL or

Super min ROZ 95 octane, unleaded

Engine Limits. Take off power

84.5 kW (113.3 BHP) at 5800 rpm

Max. Continuous Power

73.5 kW (98.6 BHP) at 5500 rpm

Reference NOTE 9.

Propeller and Propeller Limits. Muhlbauer MTV-21-A-C-F/CF 175-05

Diameter range 1750 mm (68.90 in.) maximum Diameter range 1750 mm (68.90 in.) minimum

Low Pitch $16.5^{\circ} \pm 0.2^{\circ}$ Starting Pitch $19^{\circ} \pm 1^{\circ}$ High Pitch $28^{\circ} \pm 1^{\circ}$ Feathered Pitch $83^{\circ} + 1^{\circ}$ Ctrwts. At Low Pitch $32.5^{\circ} \pm 1^{\circ}$ 

Reduced propeller speed, step-down ration 1-2.4286 (compared to engine speed)

# Airspeed Limits (I.A.S.).

	[km/h]	[kts]	[mph]
V NE (never exceed)	261	141	162
V RA (in rough air)	210	113	130
V A (maneuvering)	176	95	109
$V \; ABF \; (A/B \; in \; fixed \; position)$	150	81	93

V NE Speed Limit Altitude:

Altituc	de MSL	Vne		
[m]	[ft]	[km/h]	[kts]	[mph]
2000	6500	261	141	162
3000	9800	246	133	153
4000	13100	233	126	145
5000	16400	221	119	137
6000	19600	210	113	130

C.G. Range. Forward Limit: 318 mm (12.52 in.) aft of datum

Aft Limit: 430 mm (16.93 in.) aft of datum

Reference HK 36 TTS Flight Manual Doc. No. 3.01.15-E, Section 2.

Empty Mass Weight C.G. Reference Maintenance Manual, Table of Empty Mass C.G. Position

Section 4.

<u>Reference Datum.</u> Wing leading edge at wing root rib.

<u>Leveling Means.</u> Top surface of 1000:52 wedge horizontal on fuselage tube.

Maximum Mass Weight. 770 kg (1698 lbs.).

<u>Minimum Crew.</u> One pilot, solo operation may be conducted from the left seat only.

No. of Seats. Two, 143 mm (5.63 in.) aft of reference datum.

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Maximum Baggage.

12 kg (26.4 lbs.), 824 mm (32.44 in) aft of reference datum.

Fuel Capacity.

One fuselage tank 79 liters (20.8 U.S. gal), 824 mm (32.44 in) aft of reference datum.

Control Surface Movements.

Aileron:

Up  $-85 \text{ mm} \pm 8 \text{ mm}$   $(-3.35 \text{ in} \pm 0.31 \text{ in})$ Down  $42 \text{ mm} \pm 6 \text{mm}$   $(1.65 \text{ in.} \pm 0.24 \text{in})$ Measurement radius 195 mm (7.68 in.) from hinge line.

Elevator:

For Serial Numbers up through 36.516:

Up -60 mm +5 mm (-2.46 in  $\pm$  0.1 in) Down 50 mm  $\pm$  5 mm (2.07 in  $\pm$  0.1 in)

For Serial Numbers 36.517 and subsequent:

Up -60 mm + 5 mm/ -0 mm  $(-2.46 \text{ in} \pm 0.1/-0 \text{ in})$ Down 50 mm + 5 mm/ -0 mm (2.07 in + 0.1/-0 in)

Measurement radius 200 mm (7.87 in.) from hinge line.

Rudder:

 $\pm$  265 mm  $\pm$  15 mm ( $\pm$  10.43 in  $\pm$  0.59 in) to the right and left. Measurement radius 530 mm (20.87 in) from hinge line.

Serial Nos. Eligible.

Serial Number 36.511 and subsequent.

Certification Basis.

- 1) Code of Federal Regulations (CFR), 14 CFR 21 effective February 1, 1965, Amendments 21-1 through 21-71.
- (2) Joint Aviation Requirements for Sailplanes and Powered Sailplanes (JAR 22), Change 5, issued October 28, 1995.
- (3) Exemption pursuant to 14 CFR 11, effective November 10, 1962. Amendments 11-1 through 11-36, Section 11.25 and 11.27.
- (4) Special Conditions issued pursuant to Section 21.16; a) Propeller Feathering Control, as specified in CRI E-1, dated December 20, 1996; b)Propeller Type Definition, as specified in CRI E-2, dated December 20, 1996; c) Engine Operating Limitations, as specified in CRI G-1, dated December 18, 1996.
- (5) Equivalent level of safety finding pursuant to Section 21.21(b)(1) Middle Air Brake Stop/inadvertent movement, as specified in CRI D-1, dated March 5, 1996.
- (6) FAA Act of 1958 Section 611 (b).
- (7) 14 CFR 91, effective September 30, 1963, Amendments 91-1 through 91-229, Section 91.205 (VFR equipment requirements).
- (8) Date of Application for: HK 36 TTS Type certificate December 20, 1996. Austrian Type Certificate Number SF 3/82 for HK 36 TTS, issued December 20, 1996.

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- (9) Type Certificate Number G07CE was issued September 25, 1997, for the HK 36 TTS
- (10) The applicable airworthiness requirements for U.S. certification under FAR 21.29 identified above were established considering the airworthiness requirements applied by the exporting country under the provisions of paragraphs 2 and 6 of the agreement between the United States of America and the Republic of Austria, dated April 30, 1959, titled Certificates of Airworthiness for Imported Aeronautical Products and Components.

## Import Requirements.

A U.S. Standard Airworthiness Certificate may be issued on the basis of a Certificate of Airworthiness for Export signed by a representative of the Austro Control GmbH (ACG) containing the following statement: "The aircraft covered by this certificate has been examined, tested and found to conform to the type design approval under FAA Type Certificate G07CE and is in condition for safe operation."

The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 and exported from countries other than the country of manufacture (e.g. third party country) is FAR Sections 21.183(d) or 21.183(b).

# Minimum Equipment

# 1 Airspeed Indicator (range up to 300 km/h)

- 1 Altimeter
- 1 Magnetic direction indicator (Compass) with deviation table
- 1 RPM indicator
- 1 Running time meter
- 1 Manifold pressure gauge
- 1 Oil pressure gauge
- 1 Oil temperature gauge
- 1 Cylinder head temperature gauge
- 1 Fuel quantity gauge
- 1 Fuel pressure warning light
- 1 Ammeter
- 1 4-point harness for each seat
- 1 Generator warning light
- 1 Temperature Control Light (EGT)
- 1 TCU Caution Light
- 1 TCU Warning Light
- 1 Flight Manual, Doc. No. 3.01.10-E

#### Service Information.

"Service bulletins, structural repair manuals, vendor manuals, aircraft flight manuals, and overhaul and maintenance manuals, which contain a statement that the document is ACG approved, are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only."

# NOTES. NOTE 1.

A current weighing report and the corresponding equipment must be provided and the Mass and Balance Diagram in Section 6 of the HK 36 TTS Flight Manual must be filled out for each powered sailplane at the time of original certification. The weighing procedure given in Section 4 of the Maintenance Manual is mandatory.

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NOTE 2. The placards listed in Section 4 of the AMM or in the Supplements to the AFM

must be displayed.

NOTE 3. An Identification Plate in accordance with DAI DWG No. 820-1100-00-04 must

be attached to the fuselages left side on the lower side of the vertical stabilizer.

NOTE 4. All external portions of the glider exposed to sunlight must be painted

white except the surfaces as specified by the manufacturer in the AMM.

NOTE 5. Major structural repairs must be accomplished at FAA-certificated repair

stations rated for composite aircraft structure work, in accordance with Diamond

Aircraft Instructions for Continued Airworthiness.

NOTE 6. Prior to registration in the U.S.A. all applicable Mandatory Service

Bulletins must be carried out.

NOTE 7. Section 6 of the Diamond HK 36 TTS Maintenance Manual specifies

mandatory replacement times. These airworthiness limitations may

not be changed without FAA approval.

NOTE 8. The Rotax 914 F3/F4 Engine has to be modified in accordance with Rotax

Service Bulletin 914-01, with Propeller Governor WOODWARD A210790 or

Rotax Service Bulletin 914-09, with Propeller Governor McCAULEY

DCFU290D17B/T2.

NOTE 9. Reference Diamond Service Bulletin NO. 66 to determine the appropriate

manifold pressure limits.

# IV. Model HK 36 TTC Self Launching Powered Glider, Utility Category, approved September 25, 1997.

Engine. Rotax 914 F3 or F4

Fuel. AVGAS 100 LL or

Super min ROZ 95 octane, unleaded

Engine Limits. Take off power

84.5 kW (113.3 BHP) at 5800 rpm/38.4 inHg

Max. Continuous Power

73.5 kW (98.6 BHP) at 5500 rpm/34 in Hg

Reference Note 9.

Propeller and Propeller Limits. Muhlbauer MTV-21-A-C-F/CF 175-05

Diameter range 1750 mm (68.90 in.) maximum Diameter range 1750 mm (68.90 in.) minimum

Low Pitch $16.5^{\circ} \pm 0.2^{\circ}$ Starting Pitch $19^{\circ} \pm 1^{\circ}$ High Pitch $28^{\circ} \pm 1^{\circ}$ Feathered Pitch $83^{\circ} \pm 1^{\circ}$ Ctrwts. At Low Pitch $32.5^{\circ} \pm 1^{\circ}$ 

Reduced propeller speed, step-down ration 1-2.4286 (compared to engine

speed)

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Airspeed Limits (I.A.S.).			[km/h]	[kts]	[mph]
	V NE (1	never exceed)	261	141	162
	V RA (	in rough air)	210	113	130
	V A (m	aneuvering)	176	95	109
	V ABF	(A/B in fixed position)	150	81	93
	V NE :	Speed Limit Altitude:			
	Altitud	de MSL	VNE		
	[m]	[ft]	[km/h]	[kts]	[mph]
	2000	6500	261	141	162
	3000	9800	246	133	153
	4000	13100	233	126	145
	5000	16400	221	119	137
	6000	19600	210	113	130
C.G. Range.	Forwa		ı (12.52 i	,	

Aft Limit: 430 mm (16.93 in.) aft of datum

Reference HK 36 TTC Flight Manual Doc. No. 3.01.20-E, Section 2.

Empty Mass Weight C.G. Reference Maintenance Manual, Table of Empty Mass C.G. Position Section 4.

Reference Datum. Wing leading edge at wing root rib.

Leveling Means. Top surface of 1000:52 wedge horizontal on fuselage tube.

770 kg (1698 lbs.). Maximum Mass Weight.

Minimum Crew. One pilot, solo operation may be conducted from the left seat only.

No. of Seats. Two, 143 mm (5.63 in.) aft of reference datum.

Maximum Baggage. 12 kg (26.4 lbs.), 824 mm (32.44 in) aft of reference datum.

Fuel Capacity. One fuselage tank 79 liters (20.8 U.S. gal), 824 mm (32.44 in) aft of

reference datum.

Control Surface Movements. Aileron:

> Up  $-85 \text{ mm} \pm 8 \text{ mm}$  (-3.35 in  $\pm 0.31$  in) Down  $42 \text{ mm} \pm 6 \text{mm}$  (1.65 in.  $\pm$  0.24 in) Measurement radius 195mm (7.68 in.) from hinge line.

Elevator:

For Serial Numbers up through 36.516:

-60 mm +5 mm (-2.46 in  $\pm$  0.1 in)  $50 \text{ mm} \pm 5 \text{ mm}$  (2.07 in  $\pm 0.1 \text{ in}$ ) Down

For Serial Numbers 36.517 and subsequent:

Up -60 mm + 5 mm / -0 mm  $(-2.46 \text{ in} \pm 0.1/-0 \text{ in})$ 50 mm +5 mm/ -0 mm (2.07 in + 0.1/-0 in)

Measurement radius 200 mm (7.87 in.) from hinge line.

Rudder:

 $\pm$  265 mm  $\pm$  15 mm ( $\pm$  10.43 in  $\pm$  0.59 in) to the right and left. Measurement radius 530 mm (20.87 in) from hinge line.

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Serial Nos. Eligible.

Serial Number 36.518 and subsequent.

Certification Basis.

- 1) Code of Federal Regulations (CFR), 14 CFR 21 effective February 1, 1965, Amendments 21-1 through 21-71.
- Joint Aviation Requirements for Sailplanes and Powered sailplanes (JAR 22), Change 5, issued October 28, 1995.
- Issue Papers issued by ACG: Propeller Type Definition as specified in CRI E-2, dated December 20, 1996, and Engine Operating Limitations, as specified in CRI G-1, dated December 18, 1996.
- 4) Exemption pursuant to 14 CFR 11, effective November 10, 1962. Amendments 11-1 through 11-36, Section 11.25 and 11.27.
- 5) Special Conditions issued pursuant to Section 21.16 Propeller Feathering Control, as specified in CRI E-1, dated December 20, 1996.
- 6) FAA Act of 1958 Section 611 (b).
- 7) 14 CFR 91, effective September 30, 1963, Amendments 91-1 through 91-229, Section 91.205 (VFR equipment requirements).
- 8) Date of Application for: HK 36 TTC Type certificate December 20, 1996. Austrian Type Certificate Number SF 3/82 for HK 36 TTC, issued December 20, 1996.
- 9) Type Certificate Number G07CE was issued September 25, 1997, for the HK 36 TTC.
- 10) The applicable airworthiness requirements for U.S. certification under FAR 21.29 identified above were established considering the airworthiness requirements applied by the exporting country under the provisions of paragraphs 2 and 6 of the agreement between the United States of America and the Republic of Austria, dated April 30, 1959, titled Certificates of Airworthiness for Imported Aeronautical Products and Components.

Import Requirements.

A U.S. Standard Airworthiness Certificate may be issued on the basis of a Certificate of Airworthiness for Export signed by a representative of the Austro Control GmbH (ACG) containing the following statement: "The aircraft covered by this certificate has been examined, tested and found to conform to the type design approval under FAA Type Certificate G07CE and is in condition for safe operation."

The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 and exported from countries other than the country of manufacture (e.g. third party country) is FAR Sections 21.183(d) or 21.183(b).

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Minimum Equipment 1 Airspeed Indicator (range up to 300 km/h)

1 Altimeter

1 Magnetic direction indicator (Compass) with deviation table

1 RPM indicator 1 Running time meter

1 Manifold pressure gauge1 Oil pressure gauge

1 Oil temperature gauge

1 Cylinder head temperature gauge

1 Fuel quantity gauge

1 Fuel pressure warning light

1 Ammeter

1 4-point harness for each seat

1 Temperature control light (EGT, airbox)

1 Generator warning light1 TCU control light

1 TCU warning light

1 Flight Manual, Doc. No. 3.01.20-E

<u>Service Information.</u> "Service bulletins, structural repair manuals, vendor manuals, aircraft flight

manuals, and overhaul and maintenance manuals, which contain a statement that the document is ACG approved, are accepted by the FAA and are considered

FAA approved. These approvals pertain to the type design only."

NOTES.

NOTE 1. A current weighing report and the corresponding equipment must be provided

and the Mass and Balance Diagram in Section 6 of the HK 36 TTC Flight Manual must be filled out for each powered sailplane at the time of original certification. The weighing procedure given in Section 4 of the Maintenance

Manual is mandatory.

NOTE 2. The placards listed in Section 4 of the AMM or in the Supplements

to the AFM must be displayed.

NOTE 3. An Identification Plate in accordance with DAI DWG

No. 820-1100-00-04 must be attached to the fuselages left side on the

lower side of the vertical stabilizer.

NOTE 4. All external portions of the glider exposed to sunlight must be painted

white except the surfaces as specified by the manufacturer in the

AMM.

NOTE 5. Major structural repairs must be accomplished at FAA-certificated repair

stations rated for composite aircraft structure work, in accordance with Diamond

Aircraft Instructions for Continued Airworthiness.

NOTE 6. Prior to registration in the U.S.A. all applicable Mandatory Service

Bulletins must be carried out.

NOTE 7. Section 6 of the Diamond HK 36 TTC Maintenance Manual specifies

mandatory replacement times. These airworthiness limitations may

not be changed without FAA approval.

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NOTE 8. The Rotax 914 F3/F4 Engine has to be modified in accordance with Rotax

Service Bulletin 914-01, with Propeller Governor WOODWARD A210790 or

Rotax Service Bulletin 914-09, with Propeller Governor McCAULEY

DCFU290D17B/T2.

NOTE 9. Reference Diamond Service Bulletin NO. 66 to determine the appropriate

manifold pressure limits.

# V. Model HK 36 TTC-ECO Self Launching Powered Glider, Utility Category, approved March 29, 1999.

Engine. Rotax 914 F3 or F4

Fuel. AVGAS 100 LL or

Super min ROZ 95 octane, unleaded

Engine Limits. Take off power

84.5 kW (113.3 BHP) at 5800 rpm/38.4 inHg

Max. Continuous Power

73.5 kW (98.6 BHP) at 5500 rpm/34 in Hg

Reference Note 8.

Propeller and Propeller Limits. Muhlbauer MTV-21-A-C-F/CF 175-05

Diameter range 1750 mm (68.90 in.) maximum Diameter range 1750 mm (68.90 in.) minimum

Low Pitch $16.5^{\circ} \pm 0.2^{\circ}$ Starting Pitch $19^{\circ} \pm 1^{\circ}$ High Pitch $28^{\circ} \pm 1^{\circ}$ Feathered Pitch $83^{\circ} \pm 1^{\circ}$ Ctrwts. At Low Pitch $32.5^{\circ} \pm 1^{\circ}$ 

Reduced propeller speed, step-down ration 1-2.4286 (compared to

engine speed)

Airspeed Limits (I.A.S.).	[km/h]	[kts]	[mph]

V NE (never exceed)	261	141	162
V RA (in rough air)	210	113	130
V A (maneuvering)	176	95	109
V ABF (A/B in fixed position)	150	81	93

V NE Speed Limit Altitude:

Altitude MSL VNE

[m]	[ft]	[km/h]	[kts]	[mph]
2000	6500	261	141	162
3000	9800	246	133	153
4000	13100	233	126	145
5000	16400	221	119	137
6000	19600	210	113	130

C.G. Range. Forward Limit: 318 mm (12.52 in.) aft of datum

Aft Limit: 400 mm (15.75 in.) aft of datum

Reference HK 36 TTC-ECO Flight Manual Doc. No. 3.01.25-E, Section 2.

Empty Mass Weight C.G. Reference Maintenance Manual, Table of Empty Mass C.G. Position

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Section 4.

<u>Reference Datum.</u> Wing leading edge at wing root rib.

<u>Leveling Means.</u> Top surface of 1000:52 wedge horizontal on fuselage tube.

Maximum Mass Weight. 770 kg (1698 lbs.).

Minimum Crew. One pilot, solo operation may be conducted from the left seat only.

No. of Seats. Two, 143 mm (5.63 in.) aft of reference datum.

Maximum Baggage. 30 kg (66.2 lbs.), 824 mm (32.44 in) aft of reference datum.

Fuel Capacity. Two Wing Tanks 110 liters (29.1 U.S. gal).

106 liters (27.9 U.S. gal) usable.

Control Surface Movements. Aileron:

Up  $-85 \text{ mm} \pm 8 \text{ mm}$   $(-3.35 \text{ in} \pm 0.31 \text{ in})$ Down  $42 \text{ mm} \pm 6 \text{mm}$   $(1.65 \text{ in.} \pm 0.24 \text{ in})$ Measurement radius 195 mm (7.68 in.) from hinge line.

Elevator:

Up -65 mm +5 mm/ -0 mm (-2.66 in  $\pm$  0.1/-0 in) Down 55 mm +5 mm/ -0 mm (2.26 in  $\pm$  0.1/-0 in) Measurement radius 200 mm (7.87 in.) from hinge line.

Rudder

 $\pm$  265 mm  $\pm$  15 mm ( $\pm$  10.43 in  $\pm$  0.59 in) to the right and left. Measurement radius 530 mm (20.87 in) from hinge line.

Serial Nos. Eligible. Serial Number 36.581 and subsequent.

Certification Basis. The certification Basis of the HK 36 TTC-ECO is the same as that listed for the

HK 36 TTC except for the design differences between the two models. All design changes to make the HK 36 TTC-ECO complied with Joint Aviation Requirements for Sailplanes and Powered sailplanes (JAR 22), Change 5, issued October 28, 1995 as defined in Certification Review Item A-1, dated November

12, 1998.

Import Requirements. A U.S. Standard Airworthiness Certificate may be issued on the basis of a

Certificate of Airworthiness for Export signed by a representative of the Austro Control GmbH (ACG) containing the following statement: "The aircraft covered by this certificate has been examined, tested and found to conform to the type design approval under FAA Type Certificate G07CE and is in condition

for safe operation."

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> The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 and exported from countries other than the country of manufacture (e.g. third party country) is FAR Sections 21.183(d) or 21.183(b).

## Minimum Equipment

## 1 Airspeed Indicator (range up to 300 km/h)

- 1 Altimeter
- 1 Magnetic direction indicator (Compass) with deviation table
- 1 RPM indicator
- 1 Running time meter
- 1 Manifold pressure gauge
- 1 Oil pressure gauge
- 1 Oil temperature gauge
- 1 Cylinder head temperature gauge
- 2 Fuel quantity gauge
- 1 Low fuel light caution
- 1 Fuel pressure warning light
- 1 Ammeter
- 1 4-point harness for each seat
- 1 Temperature control light (EGT, airbox)
- 1 Generator warning light
- TCU control light
- TCU warning light
- 1 Flight Manual, Doc. No. 3.01.25-E

## Service Information.

"Service bulletins, structural repair manuals, vendor manuals, aircraft flight manuals, and overhaul and maintenance manuals, which contain a statement that the document is ACG approved, are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only."

## NOTES.

NOTE 1.

A current weighing report and the corresponding equipment must be provided and the Mass and Balance Diagram in Section 6 of the HK 36 TTC-ECO Flight Manual must be filled out for each powered sailplane at the time of original certification. The weighing procedure given in Section 4 of the Maintenance Manual is mandatory.

NOTE 2.

The placards listed in Section 4 of the AMM or in the Supplements to the AFM must be displayed.

NOTE 3.

An Identification Plate in accordance with DAI DWG No. 820-1100-00-04 must be attached to the fuselages left side on the lower side of the vertical stabilizer.

NOTE 4.

All external portions of the glider exposed to sunlight must be painted white except the surfaces as specified by the manufacturer in the AMM.

NOTE 5.

Major structural repairs must be accomplished at FAA-certificated repair stations rated for composite aircraft structure work, in accordance with Diamond Aircraft Instructions for Continued Airworthiness.

NOTE 6.

Prior to registration in the U.S.A. all applicable Mandatory Service Bulletins must be carried out.

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NOTE 7. Section 6 of the Diamond HK 36 TTC-ECO Maintenance Manual specifies

mandatory replacement times. These airworthiness limitations may not be

changed without FAA approval.

NOTE 8. The Rotax 914 F3/F4 Engine has to be modified in accordance with Rotax

Service Bulletin 914-01, with Propeller Governor WOODWARD A210790 or

Rotax Service Bulletin 914-09, with Propeller Governor McCAULEY

DCFU290D17B/T2.

NOTE 9. Reference Diamond Service Bulletin NO. 66 to determine the appropriate

manifold pressure limits.

# VI. Model HK 36 TTC-ECO Self Launching Powered Glider, Restricted Category, approved December 21, 2000.

The restricted category operation of the HK 36 TTC-ECO is limited to aerial photography. The aircraft must comply with Diamond Optional Design Change OÄM 36-194 and Diamond Drawing No. 36-0000-00-00 and subsequent referenced drawings. The aircraft must be operated in accordance with the basic HK 36 TTC-ECO Airplane Flight Manual and AFM Supplements 8 and 12.

Engine. Rotax 914 F3 or F4

Fuel. AVGAS 100 LL or

Super min ROZ 95 octane, unleaded

Engine Limits. Take off power

84.5 kW (113.3 BHP) at 5800 rpm/38.4 inHg

Max. Continuous Power

73.5 kW (98.6 BHP) at 5500 rpm/34 in Hg

Reference Note 8.

Propeller and Propeller Limits. Muhlbauer MTV-21-A-C-F/CF 175-05

Diameter range 1750 mm (68.90 in.) maximum Diameter range 1750 mm (68.90 in.) minimum

Low Pitch $16.5^{\circ} \pm 0.2^{\circ}$ Starting Pitch $19^{\circ} \pm 1^{\circ}$ High Pitch $28^{\circ} \pm 1^{\circ}$ Feathered Pitch $83^{\circ} \pm 1^{\circ}$ Ctrwts. At Low Pitch $32.5^{\circ} \pm 1^{\circ}$ 

Reduced propeller speed, step-down ration 1-2.4286 compared to engine speed)

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Airspeed Limits (I.A.S.).		[km/h]	[kts]	[mph]
	V NE (never exceed)	261	141	162
	V RA (in rough air)	210	113	130
	V A (maneuvering)	176	95	109
	V ABF (A/B in fixed position)	150	81	93
	V NE Speed Limit Altitude:	130	01	75
	Altitude MSL	Vne		
	[m] [ft]	[km/h]	[kts]	[mph]
	2000 6500	261	141	162
	3000 9800	246	133	153
	4000 13100	233	126	145
	5000 16400	221	119	137
	6000 19600	210	113	130
C.G. Range.		n (12.52 i n (15.75 i		
	THE EIMIN.	1 (10.70 1	iii.) uit 01	dutum
	Reference HK 36 TTC-E	CO Fligh	t Manua	Supplement 12 Doc. No.
	3.01.25-E, Section 6.	C		
Empty Mass Weight C.G.	Reference Maintenance Manual, Table of Empty Mass C.G. Position Section 4. NOTE: Camera, pod, and other installed role equipment are not included in the empty mass. The components must be treated as a useful load for mass and CG calculations.			
Reference Datum.	Wing leading edge at wing root rib.			
Leveling Means.	Top surface of 1000:52 wedge horizontal on fuselage tube.			

930 kg (2050 lbs.). Maximum Mass Weight.

Minimum Crew. One pilot, solo operation may be conducted from the left seat only.

No. of Seats. Two, 143 mm (5.63 in.) aft of reference datum.

Maximum Baggage. 30 kg (66.2 lbs.), 824 mm (32.44 in) aft of reference datum.

Fuel Capacity. Two Wing Tanks 110 liters (29.1 U.S. gal).

106 liters (27.9 U.S. gal) usable.

Control Surface Movements. Aileron:

> Up  $-85 \text{ mm} \pm 8 \text{ mm}$  $(-3.35 \text{ in} \pm 0.31 \text{ in})$  $42 \text{ mm} \pm 6 \text{mm}$  $(1.65 \text{ in.} \pm 0.24 \text{ in})$ Down Measurement radius 195mm (7.68 in.) from hinge line.

Elevator:

-65 mm +5 mm/ -0 mm  $(-2.66 \text{ in} \pm 0.1/-0 \text{ in})$ Up Down 55 mm + 5 mm / -0 mm(2.26 in + 0.1/-0 in)

Measurement radius 200 mm (7.87 in.) from hinge line.

265 mm  $\pm$  15 mm ( $\pm$  10.43 in  $\pm$  0.59 in) to the right and left. Measurement radius 530 mm (20.87 in) from hinge line.

Serial Nos. Eligible. Serial Number 36.581 and subsequent. G07CE 23 of 24

Certification Basis.

The certification Basis of the HK 36 TTC-ECO, operated in the Restricted Category, is the same as that listed for the HK 36 TTC-ECO.

Import Requirements.

A U.S. Standard Airworthiness Certificate may be issued on the basis of a Certificate of Airworthiness for Export signed by a representative of the Austro Control GmbH (ACG) containing the following statement: "The aircraft covered by this certificate has been examined, tested and found to conform to the type design approval under FAA Type Certificate G07CE and is in condition for safe operation." The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 and exported from countries other than the country of manufacture (e.g. third party country) is FAR Sections 21.183(d) or 21.183(b).

# Minimum Equipment

- 1 Airspeed Indicator (range up to 300 km/h)
- 1 Altimeter
- 1 Magnetic direction indicator (Compass) with deviation table
- 1 RPM indicator
- 1 Running time meter
- 1 Manifold pressure gauge
- 1 Oil pressure gauge
- 1 Oil temperature gauge
- 1 Cylinder head temperature gauge
- 2 Fuel quantity gauge
- 1 Low fuel caution light
- 1 Fuel pressure warning light
- 1 Ammeter
- 1 4-point harness for each seat
- 1 Temperature control light (EGT, airbox)
- 1 Generator warning light
- TCU control light
- TCU warning light
- 1 Flight Manual, Doc. No. 3.01.25-E

#### Service Information.

"Service bulletins, structural repair manuals, vendor manuals, aircraft flight manuals, and overhaul and maintenance manuals, which contains statement that the document is ACG approved, are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only."

## NOTES.

NOTE 1.

A current weighing report and the corresponding equipment must be provided and the Mass and Balance Diagram in Section 6 of the HK 36 TTC-ECO Flight Manual must be filled out for each powered sailplane at the time of original certification. The weighing procedure given in Section 4 of the Maintenance Manual is mandatory.

NOTE 2.

The placards listed in Section 4 of the AMM or in the Supplements to the AFM must be displayed.

NOTE 3.

An Identification Plate in accordance with DAI DWG No. 820-1100-00-04 must be attached to the fuselages left side on the lower side of the vertical stabilizer.

NOTE 4.

All external portions of the glider exposed to sunlight must be painted white except the surfaces as specified by the manufacturer in the AMM.

NOTE 5. Major structural repairs must be accomplished at FAA-certificated repair stations rated for composite aircraft structure work, in accordance with Diamond Aircraft Instructions for Continued Airworthiness. NOTE 6. Prior to registration in the U.S.A. all applicable Mandatory Service Bulletins must be carried out. Section 6 of the Diamond HK 36 TTC-ECO Maintenance Manual specifies NOTE 7. mandatory replacement times. These airworthiness limitations may not be changed without FAA approval. NOTE 8. The Rotax 914 F3/F4 Engine has to be modified in accordance with Rotax Service Bulletin 914-01, with Propeller Governor WOODWARD A210790 or Rotax Service Bulletin 914-09, with Propeller Governor McCAULEY DCFU290D17B/T2.

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NOTE 9.

-END-

manifold pressure limits.

Reference Diamond Service Bulletin NO. 66 to determine the appropriate